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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/728,111

12/05/2003

Birgit Muller-Chorus

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08/02/2005

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EXAMINER

VO, ANH T N

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 08/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/728,111

Applicant(s)

MULLER-CHORUS ET AL.

Examiner

Anh T.N. Vo

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 and 47-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-10, 12-16, 19, 29, 30 and 35 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 11, 17, 18, 20-28, 31-34, 36 and 47-54 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 2861

## DETAILED ACTION

### *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Objection*

Claims 51-54 are objected to because of the following informalities:

\* In claims 51-53, line 1, "40" should be changed to --50--.

\* In claim 54, line 1, "38" should be changed to --48--.

Appropriate correction is required.

## CLAIM REJECTIONS

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 5-10, 12-16, 19-24, 29-30, and 35 are rejected under 35 USC 102 (b) as being anticipated by Andoh et al. (US Pat. 4,380,018).

Andoh et al. disclose in Figures 1-2, 5-12 and 19 an ink jet printing apparatus comprising:

- a first body (19);
- the first body (19) has a main channel (18), secondary channels (17), one inlet, and outlets;
- the main channel (18) is connected to the inlet;
- the secondary channels (17) are connected to one outlet at a time;
- the secondary channels (17) are connected to the main channel (18);
- at least one first chamber (11) with a first pressure medium (14);
- the first body (19) has means (16) for transferring pressure surges of a first pressure medium (14) from a first chamber (11) to the secondary channels (17);
- each transfer means (16) is connected to a secondary channel (17);
- at least one means (13) for preventing a fluidic connection between the secondary channels (17) and the chamber (11) is assigned to the transfer means (16);
- the main channel (18) has controllable means ((45) for fluidic decoupling;
- wherein the prevention means (13) are sections of a first elastic and at least essentially impermeable film, the film is an elastomer;
- wherein the main channel (18) and the secondary channels (17) are provided as grooves in the first outer surface of the first body (19);
- wherein the main channel (18) and/or the secondary channels (17) are capillaries at least in sections;
- wherein the sections of the secondary channels (17) which adjoin the main channel (18) are capillaries;
- wherein the transfer means (20) are made as first recesses;
- wherein the first film (13) lies on the first outside surface;
- wherein the first film (13) is attached to the first body (19) by bonding;
- wherein the first film (13) covers at least the first recesses (20);
- wherein the first film (13) is attached to the body (10) in the area of the first recess (20) by bonding;
- wherein the device has a second body (10);

- wherein the first pressure medium (14) is under a pressure which has a first amount and which ensures that the first film (13) is fixed on the first body (19);
- wherein the second body (10) has microstructure elements; and
- wherein the microstructure elements project into the first and/or second chamber (11).

***Citation of Pertinent Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art references (US Pat. 3,631,724; US Pat. 3,946,398; US Pat. 4,019,721; US Pat. 4,294,113; US Pat. 6,629,739) cited in the PTO 892 form show an ink jet printer or a flowing fluid device that is deemed to be relevant to the present invention. These references should be reviewed.

***Allowable Subject Matter***

Claim 3 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. This claim would be allowable because none of the prior art references of record discloses a device for parallel metering of a liquid comprising a plurality of decoupling means between an inlet and a first connection of a main channel to one of secondary channels and/or between all connections of the main channel and one of the secondary channels in the combination as claimed.

Claims 4, 25, 27-28, and 47-54 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. These claims would be allowable because none of the prior art references of record discloses a device for parallel metering of a liquid comprising first recesses that are located on a first end of each secondary channel and outlets are located on second ends of each secondary channel in the combination as claimed.


Claims 17-18 and 26 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. These claims would be allowable because none of the prior art references of record discloses a device for parallel metering of a liquid comprising a second body that rests on a first film, the second body and the first film encompassing at least a first chamber in the combination as claimed.

Claims 20-24 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. These claims would be allowable because none of the prior art references of record discloses a device for parallel metering of a liquid comprising the secondary channel sections that have means for metering the liquid in the combination as claimed.

Claims 31-34 and 36 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. These claims would be allowable because none of the prior art references of record discloses a device for parallel metering of a liquid comprising microstructure elements that fix a first film on a first body in the combination as claimed.

### ***CONCLUSION***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262. The examiner can normally be reached on Tuesday to Friday from 9:00 A.M. to 7:00 P.M.. The fax number of this Group 2861 is (571) 273-8300.

  
**ANH T.N. VO**  
**PRIMARY EXAMINER**  
July 28, 2005